

ABSTRACT OF THE DISCLOSURE

A DMA computer system (10) for driving a peripheral device such as an LCD display (12) of a GPS receiver without stealing excessive cycles from a CPU (18). The DMA computer system (10) includes a CPU (18), a first memory (20) that may be

- 5 written to or read by the CPU (18), a second memory (22) that may be written to or read by the CPU (18), and a DMA controller (24) coupled with the CPU (18) and the second memory (22). The DMA controller (24) is operable to: read data from the second memory (22) and transfer the data to the peripheral device; delay the CPU (18) from accessing the second memory (22) while the DMA controller (24) is reading data from
- 10 the second memory (22); enable the CPU (18) to regain access to the second memory (22) once the DMA controller (24) has finished reading data from the second memory (22); and allow the CPU (18) to access the first memory (20) without delay even while the DMA controller (24) is reading data from the second memory (22).